TWO CASES OF SPRUE TREATED BY MOUTH STREPTOCOCCAL VACCINES AND EMETINE HYDROCHLORIDE HYPODERMICALLY

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TWO CASES OF SPRUE TREATED BY MOUTH STREPTOCOCCAL VACCINES AND EMETINE HYDROCHLORIDE HYPODERMICALLY.

In the chapter on sprue in my work on dysenteries a series of 47 cases treated in the European General Hospital is analysed, and the conclusion arrived at that in only a very small proportion was even temporary benefit derived from prolonged treatment in a tropical climate, while in the great majority no improvement resulted from our present methods. I also mentioned that I had seen some good from small doses of ipecacuanha, and suggested a trial of emetine hydrochloride hypodermically. During the last few months I have had some opportunities of trying this treatment. In addition I administered a vaccine prepared from streptococci derived from the mouth ulcers, where they were found to be present in nearly pure culture. In the following two severe and chronic cases the results of this method of treatment have been so strikingly favourable as to appear to be worthy of record, as it may be a considerable time before I get any further opportunity of trying the same remedies.

Case 1.—A Mahomedan woman, aged about 40, was sent over from Bombay to be under my treatment. The history of the case showed that in October, 1905, she had commenced passing a number of large light-coloured loose, frothy stools, said to be as many as 20 daily, and accompanied by obstinate dyspepsia. She was then a stout woman weighing 14 st., but her weight soon became reduced to 10 st. During the following year the diarrhœa was less, with only about five stools daily, but she was never free from it. In November, 1908, there was a recrudescence,

with numerous loose stools, nausea, and flatulence. She stated that this condition had continued ever since, and that for the nine years before I saw her she had never been free from diarrhœa, although she had been treated by a number of medical men, both European and Indian, in Bombay and Calcutta. She lived in Bombay from June, 1911, to December, 1913, but was worse there than when in Calcutta. At that time she used occasionally to become giddy and even faint, having several times been found collapsed on the floor at night on her way back from the bathroom. During the 18 months she was in Bombay her gums were ulcerated and they bled freely, and she was told by a dentist that this condition could not be cured until all her teeth had been removed, which she declined to allow.

Present condition.—When I first saw the patient on Dec. 6th, 1913, she was passing about 12 large, loose, pale, sprue-like stools daily, accompanied by flatulent dyspepsia. I failed to find any amœbæ in the stools, but determined to try emetine injections for the reasons given in the opening paragraph of this paper. There was marked pyorrhœa alveolaris, so I made cultures, and obtained large numbers of streptococci, from which I made a vaccine.

Progress.—Half-grain doses of emetine hydrochloride were injected hypodermically every other day, and were soon increased to one-grain doses. After two or three injections, and before the vaccine had been commenced, the stools became much less frequent and of better consistency and colour. After eight injections the evacuations had become healthy and only one or two a day. In the meantime the streptococcal vaccine was begun, 50,000,000 soon increased to 100,000,000, being injected once a week. The discharge of pus from the gums rapidly decreased, and in a few weeks completely disappeared, and has remained absent for the last four months. No teeth were removed. Some superficial soreness and redness of the tongue subsequently appeared, from which a streptococcus was also cultivated. A vaccine made from this removed the unhealthy condition of the tongue within a few days.

I saw the patient on May 3rd last, and, except for slight redness of the tip of the tongue, she was quite well almost five months since the diarrhœa ceased, after having been continuously present for nine years before the new treatment was commenced. She has no dyspeptic symptoms, and can digest all ordinary food. She is now free from the giddiness, faintness, and neuralgia which she used to suffer from, and her general health has greatly improved. She has not been weighed regularly but has put on some flesh and has gained much in strength. The only trouble with her bowels is a slight tendency to constipation, necessitating an occasional dose of castor oil.

CASE 2.—A woman, aged about 40, came under my care, in consultation with Dr. C. H. Elmes, in December, 1913, in an advanced stage of sprue of four years' duration. The previous history is a long one, but the principal points are given in the following chronological account:—1909: August to November, very severe diarrhœa on and off in Calcutta. Went to England and into a nursing home, and was later sent on a long sea voyage to Hong-Kong. 1910: January, in Peak Hospital, Hong-Kong, where the disease was diagnosed as sprue. Returned to Calcutta at the end of January and got much worse. Rapidly lost weight from 13½ st. to 10⅗ st. Returned to Hong-Kong in April, and remained in hospital there for six months, at the end of which she had lost another stone in weight during a severe relapse. Then went to England, and lost her diarrhœa on the voyage. 1911: Returned to Calcutta and again became affected with sprue. April to August, voyage to Japan and back. Returned stronger and heavier and free from sprue. Relapsed a week after return to Calcutta, but improved much during five weeks in the General Hospital. 1912: March to August, trip to Japan. No diarrhœa, and put on nearly a stone in weight. Returned to Calcutta in September and had another very severe relapse, lasting to February, 1913. 1913: In February left again for Japan. The diarrhœa at first stopped on the voyage, but later very severe relapse, with 10 to 14 stools daily, following a chill. The mouth was especially bad in this attack, and remained most painful for 10 months. She now went to Berlin for treatment and improved considerably. In August she went to London and again relapsed. From August to November she was under the care of specialists on tropical diseases in nursing homes and at her house, but got steadily worse, her weight now falling to 7 st. 5 lb., although a tall, heavily built woman whose former weight was 13⅗ st. In November left for India. The diarrhœa continued to be severe on the voyage, while she also suffered from chyluria, after the onset of which the diarrhœa became somewhat less. The feet had now become swollen, and her general condition was very unfavourable.

Present condition.—I first saw the patient on Dec. 17th, 1913. She was then in a very emaciated and weak condition, and passing several large, pale, typical sprue stools daily. Emetine hydrochloride was given in half-grain doses two or three times a week, and later increased to one-grain doses. She slowly improved during the next three weeks, but on Jan. 14th last she had a severe relapse with frequent copious stools. Her mouth had now become very painful, with numerous small shallow ulcers on the tongue and buccal mucous membrane, while the temperature rose every afternoon for about a week. She was very prostrated and too weak to stand or even sit up, while the pulse was fast

and irregular. I now made cultures from the mouth ulcers, and obtained in some of the tubes a pure growth of a streptococcus. I therefore made a vaccine from it and commenced with 50,000,000, increased later to 100,000,000, once a week. After the second dose of the vaccine both the mouth and the bowel symptoms rapidly improved. Towards the end of January she was put on a milk diet by another physician during my temporary absence from Calcutta, beginning with 6 oz. and gradually increasing it to 120 oz. daily by the end of three weeks. The emetine injections were continued twice a week. The diarrhœa now stopped, the mouth lesions healed, the vaccine being continued once a week. Up to this time the patient was being carried from her bed to a couch for a few hours daily. She now rapidly improved, and on March 4th was able to be moved to Bangalore, a three days' railway journey, for the hot weather.

On March 20th the patient reported that she had had no sign of diarrhœa since Feb. 5th. The mouth was quite well. She had gained just over a stone in weight in four weeks, before which she had become reduced to 6 st. 9 lb., or to under half her original weight. She was now able to walk a quarter of a mile and do everything for herself. She was continuing the vaccine once every eight days and the emetine injections once in ten days. On April 9th she reported continued improvement. She could now digest eggs, semolina, and toast-and-butter. I last heard from her on April 28th, when she remained free from all signs of sprue and continued to gain weight steadily.

Although it is too early to draw final conclusions from the above two cases, yet, in view of the very unsatisfactory results of other forms of treatment in Calcutta (including that by yellow santonin), the rapid and great improvement in two successive severe and very chronic cases is not a little remarkable. In the first case the improvement certainly commenced as soon as the emetine injections were begun, and before the mouth streptococcal vaccine was administered. Nevertheless, I am inclined to attribute much of the ultimate success to the vaccine. In the second case a relapse occurred after improvement had followed the emetine injections, and it was not until the mouth condition had been improved by two doses of the streptococcal vaccine that rapid and continued improvement of the stools set in. I think the milk diet was also of undoubted service in this case, although it was not found to be necessary with the first patient. I do not look on emetine as in any way a specific in

sprue, such as it undoubtedly is in amœbic dysentery and hepatitis, but I am inclined to regard it of some value in certain cases of the disease. We should bear in mind that "sprue" is a purely clinical term, and there may be more than one causative agent, just as in the case of "dysentery."

The success attending the use of a vaccine made from the streptococci which were found present in practically pure culture in the mouth lesions is very significant, and opens up the interesting and suggestive question as to whether this class of organism may not be the cause of the disease, at least in some cases. The rapidity with which the disappearance of mouth ulcers under the influence of the vaccine was in the second case followed by cessation of the diarrhœa certainly suggests a causal relationship between the organism and the disease, and affords some hope of the new treatment proving to be of a specific nature and thus an important advance in dealing with this intractable and distressing disease. Even in cases where no mouth lesions are present there may still be a streptococcal infection of the digestive tract, and possibly cultures may be obtainable from the stools which might prove of service in the form of a vaccine. At any rate, it appears to be advisable to put these two cases on record without delay, if only to stimulate research on the lines I have indicated.

Calcutta.

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